FE-Discretization and Analysis:

→ Discrete LBB-condition

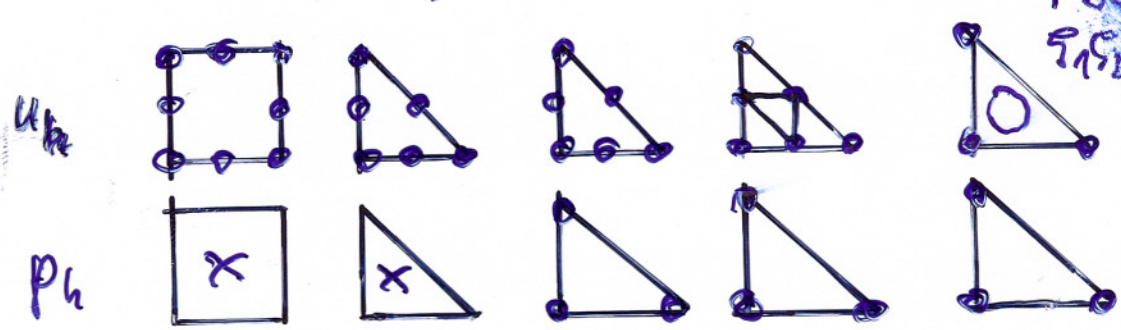
$$(29)\qquad \sup_{u_h \in X_h} \frac{(\operatorname{div} u_h, p_h)_0}{\|u_h\|_1} \geq \tilde{\beta}_1 \|p_h\|_0 \quad \forall p_h \in \Lambda_h$$

→ can be borrowed from CFD since

FE-Analysis of (24) or (28)	$\cong$	Stokes Problem

In particular, we can use stable element pairs for u and p for STOKES ($\Leftrightarrow$ discrete LBB with $\tilde{\beta}_1 \neq \tilde{\beta}_1(h)$!) for the FE-Discretization of (24) and (28)

For instance, in 2D



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